

Abstract

A method and apparatus for performing discrete simulation of ergonomic movements that includes a microprocessor to transform a manually performed process into a time-based listing of events, simulate the process and tabulate the results. In addition to a tabular output of the simulation results, the present system provides a graphical representation of a subject performing the simulated tasks together with color-coded depictions illustrating awkward and overly-demanding body movements. Furthermore, an event detector is provided to detect invalid events that may be simulated during verification of the design. The entire process is performed in a manner that minimizes data transfer time between the simulated and graphical portions thereby ensuring that a high level of synchronization is maintained between the simulation of the process and creation of the graphical representation.